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09/905,274	07/13/2001	Clifford Theodore Papsdorf	8609	2737

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THE PROCTER & GAMBLE COMPANY
INTELLECTUAL PROPERTY DIVISION
WINTON HILL BUSINESS CENTER - BOX 161
6110 CENTER HILL AVENUE
CINCINNATI, OH 45224

EXAMINER

TAWFIK, SAMEH

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3721

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/905,274
Filing Date: July 13, 2001
Appellant(s): PAPSDORF, CLIFFORD THEODORE

MAILED

MAR 15 2007

Group 3700

David K. Mattheis
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/11/2006 appealing from the Office action mailed 07/07/2006. .

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

3,348,458	Tipper	10/1967
775,495	McConnell	11/1904

2,314,757

Benedict

03/1943

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2-6, 13-18, 21-23, and 25-27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tipper (U.S. Patent No. 3,348,458) in view of McConnell (U.S. Patent No. 775,495).

Tipper discloses a method and apparatus for forming a pleatable web having a mutually orthogonal machine direction, a cross machine direction and a Z-direction, see for example (Fig. 4) the apparatus comprising a first series of elongate spaced protuberances converging in the cross machine direction (Figs. 2 and 4; via 36 are upper multiple ridges located in the cross machine direction); a second series of elongate spaced protuberances converging in the machine direction (Figs. 2 and 4; via 37 are lower multiple ridges located in the cross machine direction), wherein the first series of protuberances and the second series of protuberances interleave in the Z-direction (Figs. 2-4, 19, and 22); and the first series and the second series of interleaved protuberances being capable of folding a pleatable web into a generally pleated pattern of machine direction pleats upon contact of the web relative to the first and second series of protuberances (Figs. 16-19 and 22).

Tipper does not disclose that a drive element is disposed to form a friction nip with the first series of elongate spaced protuberances. However, McConnell discloses a similar web pleating apparatus using a drive element disposed to form a friction nip with the first series of elongate spaced protuberances, see for example (Figs. 1-3; via multi rollers 5, and driving rollers 8; column 3, lines 24-26).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Tipper's pleating apparatus with the use of a driving element being disposed to form a friction nip with the first series of elongate spaced protuberances, as suggested by McConnell (for example via driving element via upper roller 8 and first series of elongate protuberances via lower roller 8), in order to feed and draw the web through the machine without danger of breaking or tearing the web (column 1, lines 45-49) and to expedite feeding/pulling the web.

Regarding claim 2: Tipper discloses that the apparatus has a machine direction inlet to the first and second series of elongate spaced protuberances and the apparatus has a machine direction outlet from the first and second series of elongate spaced protuberances wherein the web maintains contact with the first series and the second series of interleaved protuberances from the inlet to the outlet, see for example (Figs. 1 and 3).

Regarding claim 3: Tipper discloses that the converging elongate spaced protuberances are blades (Figs. 4; via 36 and 37 and Figs. 16-19; via 109 and 108).

Regarding claims 4 and 16: Tipper discloses that a converging tunnel (Fig. 1, via pleated casing 48 coming out of pleater 23) disposed downstream in the machine direction of the first and second series of interleaved protuberances (36 and 37) receives the web and wherein the

pleated web is constrained by the converging tunnel to maintain the pleated pattern when the web is within the converging tunnel (Fig. 1).

Regarding claims 5 and 15: Tipper discloses that the converging tunnel comprises an arcuate cavity for receiving the web (Fig. 1; via 48); note that 23 comprises cavity to receives the web as shown in Figs. 1 and 4.

Regarding claims 6, 18, and 22: Tipper discloses a drive roll for pushing the pleatable web into the interleaved protuberances, see for example (Fig. 1); note that it is inherent the machine has some drive means to convey the web.

Regarding claim 13: Tipper discloses that the first series of protuberances and the second series of protuberances are spaced apart in the cross machine direction (Fig. 4).

Regarding claim 18: Tipper discloses pushing the pleatable web relative to the interleaved first and second series of converging elongate spaced protuberances (Figs. 16-19; via by pushing the protuberances toward each other).

Regarding claim 23: Tipper discloses the pleatable web has a first side and a second side opposed thereto, the first series of spaced protuberances contacting the first side and the second series of spaced protuberances contacting the second side when the pleatable web contacts the web pleating apparatus (Figs. 16-19).

Regarding claim 26: Tipper discloses that the arcuate cavity has a radius being decreasable in the machine direction, see for example (Fig. 1).

Regarding claim 27: Tipper discloses that the arcuate cavity has a substantially uniform radius, see for example (Figs. 1 and 16-19).

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Claims 7-9, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tipper (U.S. Patent No. 3,348,458) in view of McConnell (U.S. Patent No. 775,495) and further in view of applicant's admitted prior art as applicant has not challenge the official notice.

Neither Tipper nor McConnell explicitly disclose that the second coefficient of friction of the drive roller is greater than the first coefficient of friction of the protuberances. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Tipper in view of McConnell's web pleating apparatus by having the second coefficient of friction of the drive roll greater than the first coefficient of friction of the first and second spaced protuberances, as a matter of engineering design choice, since the examiner takes official notice that there has to be differences in friction in order to keep transferring and driving the web through the apparatus and that this is old, well known, and available in the art.

Regarding claims 8 and 19: neither Tipper nor McConnell disclose a heater for heating the pleated web. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Tipper in view of McConnell's web pleating apparatus by having a heater for heating the pleated web, as a matter of engineering design choice, since the examiner takes official notice that using heater for heating the pleated web is old, well known, and available in the art.

Regarding claim 9: neither Tipper nor McConnell disclose a cooler for cooling the web downstream from the heater. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Tipper in view of McConnell's web pleating apparatus by having a cooler for cooling the web downstream from the heater, as a

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matter of engineering design choice, since the examiner takes official notice that using a cooler for cooling the web downstream from the heater is old, well known, and available in the art.

Claims 10-12, and 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tipper (U.S. Patent No. 3,348,458) in view of in view of McConnell (U.S. Patent No. 775,495) and further in view of Benedict (2,314,757).

Neither Tipper nor McConnell disclose that a scoring device prior to the pleatable station wherein the scoring device comprises first and second axially rotatable rolls and maintaining a fixed gap therebetween. However, Benedict discloses a similar web pleating apparatus comprising a scoring device comprises a first and second axially rotatable rolls (Fig. 1, via rollers 15 and 16) and maintaining a fixed gap there-between (Fig. 1, note it has to be gap between rollers in order to feed the web there-between).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Tipper in view of McConnell's web pleating apparatus by having a scoring device comprising first and second axially rotatable rolls and maintaining a fixed gap there-between, as suggested by Benedict, in order to reduce friction and danger of breakage of the web (column 1, lines 11-13).

(10) Response to Argument

In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

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USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, both applied references of Tipper '458 and McConnell '495 are related to the same art of pleating/corrugating sheet material, while '458 discloses the claimed invention except for a driving element. '495 discloses a driving element via 8 to drive, feed, and pull the web material. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Tipper's pleating apparatus with the use of driving an element, as suggested by McConnell (for example, via a driving element via upper and lower rollers 8), in order to feed and draw the web through the machine without danger of breaking or tearing the web (column 1, lines 45-49) and to expedite the process and the way of feeding the web.

Appellant further argues that McConnell's driving rollers 8 are not taught as friction nips as they are not in contact with the first series of elongate protuberances. The examiner maintains that McConnell's driving rollers 8 clearly forming nips between them and also forming a nip between them and the first protuberances, see for example Fig. 3 as it shows a nip between the driven rollers 8 and a nip between rollers 8 and protuberances 5.

Appellant does not see where the drive element forms a friction nip with the protuberances in Tipper '458 as modified. The examiner is applying the same arrangements and teaching of '495's driving rollers 8 to be positioned downstream of the protuberances of '458 in the feeding direction of the web.

The examiner maintains that McConnell's driving rollers 8 clearly forming nips between them and also forming a nip between them and the first protuberances, see for example Fig. 3 as it shows a nip between the driven rollers 8 and a nip between rollers 8 and protuberances 5.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

ST.

SAMEH H. TAWFIK
PRIMARY EXAMINER

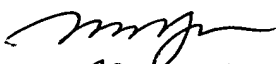


Conferees:



Allan Shoap, SPE 3700

Mickey Yu


SPE 3728